

REMARKS:

Claims 1-10, 17, 19-29, and 32-49 were presented for examination and were pending in this application. Claims 50 and 51 have been added. In an Official Action dated May 6, 2004, claims 1-10, 17, 19-29, and 32-49 were rejected. Applicants thank Examiner for examination of the claims pending in this application and address Examiner's comments below. In addition, Applicants thank Examiner for indicating approval of the drawing corrections made on August 4, 2003.

Response to Rejection Under 35 USC 102(e)

In the 3rd paragraph of the Office Action, Examiner rejects claims 1-6, 8-10, 17, 19, 20, 22-26, 27-29, 32-34, 38, and 47 under 35 USC § 102(e) as allegedly being anticipated by U.S. Patent No. 6,374,109 to Shaheen et al. ("Shaheen"). This rejection is now traversed.

Claim 1 recites:

A method for receiving an output signal from one of a first wireless communication device operating in a first frequency range or a second wireless communication device operating in a second frequency range, the method comprising:

- receiving the output signal at a processor;
- identifying whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal; and
- implementing a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

Similarly, claim 19 recites a system for receiving an output signal ... comprising a processor for receiving the output signal, wherein the processor is adapted to, among other things:

implement a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

Similarly, claim 33 recites a computer readable medium comprising a plurality of instructions that when executed by a processor, they cause the processor to among other steps perform the step of:

implementing a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

The protocol correspondence element is also present in claim 34. Claim 34 recites a receiver apparatus for receiving wireless communications that comprises:

a processor for effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication information.

The implementation of “a protocol that corresponds to the identified wireless communication device” as well as “effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication

information” beneficially provide the ability to receive signals encoded according to different communication protocols and, thereafter appropriately process the received signal. For example, based on the first few bits of the data, a proper protocol to decode the rest of its content may be implemented. One example of a system for which this feature is advantageous includes a system in which a single receiver receives signals from several transmitters, each using a different communication protocol, wherein the transmitters are uni-directional, i.e., a polling master/slave communication protocol cannot be implemented because the transmitting devices cannot receive polling signals.

Unlike the claimed invention, Shaheen describes a wireless cellular communication system that “facilitates wireless communication with a multiple mode subscribing unit operating within a respective service area.” Col. 3, lines 1-5 (emphasis added). Shaheen does not show or describe the claimed protocol “implementing” and “effecting” elements of the present invention, which implement the protocol that corresponds to the appropriate wireless communication device from information in the received at the processor in the communication itself. Instead, the system of Shaheen requires bi-directional communications (e.g., polling master/slave communications) between base stations and subscribing units that operate according to information provided in broadcast messages from the base stations:

Broadcast messages may include frequency band information, channel information, protocol information and such other information as is helpful in managing communications within the service area. The subscribing units 103, 105 and 107 receive the broadcast messages and, based upon the broadcast messages, determine in which frequency band, on which channels and according to which protocols to operate. In selecting such operations, the subscribing units 103, 105 and 107 may simply act based upon the information received in the broadcast message and/or upon their own preferred mode of operation. However, in other embodiments, the subscribing units 103, 105 and

107 communicate with the network to receive additional information
used to make the operational determinations.

Col. 6, lines 1-14. Accordingly, in the system described in Shaheen, the network broadcast message informs listening subscribing units of the capabilities of the network and based on this information the subscribing units select their operation from the available options provided by the base station. See col. 6, line 65- col. 7, line 7. "The broadcast message may be provided on a control channel or may be provided on a dedicated broadcast channel."
Col. 8, lines 65-68.

Thus, in the system described in Shaheen, the base stations assign the appropriate channel or frequency that must be used by the subscribing units for each protocol that the base station supports. The subscribing units simply select what protocol to operate with and then comply with the base station instructions for that protocol. The base station, upon receipt of a signal in a particular channel or frequency, applies the protocol it assigned to that channel or frequency without a need to "determine" or "identify" the sending subscribing unit because the base station is in control of the assignment of channels to protocols. By contrast, according to the claimed invention, protocols are implemented or effected based on the identity or determination of the which wireless communication device sent the received information. The protocols are not implemented based on a predetermined assignment controlled and sent the base stations to the sending wireless communication devices for instructing their operation. Thus, unlike the claimed invention, which can beneficially operate in a uni-directional communication environment, the system described in Shaheen is limited to bi-directional communication environments that support the broadcast message based operation.

In a rejection under 35 U.S.C. §102, each and every claim element must be present in the applied reference. Because the Examiner has not found several of the claimed elements in the Shaheen reference, the Examiner asserts that those elements are inherent in the reference. The MPEP provides clear guidelines of when an element can be found inherently in the applied reference:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

MPEP § 2112 IV. However, the Examiner has failed to meet these guidelines, at least with respect to Applicant's claimed elements of "determining," "identifying," "implementing," and "effecting." These claimed elements cannot be inherently found in the Shaheen reference because these elements do not necessarily flow from the teachings of Shaheen.

Contrary to Examiner's suggestion, Applicants respectfully submit that it is not inherent from the teachings of Shaheen that the base station 106 must necessarily be able to determine "which wireless communication device sent the communication information" or to "identify whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal" as recited in claims 1, 19, 33, and 34. As described above, the base station in Shaheen broadcasts to the listening subscribing units on a control channel information about

how the subscriber units must communicate with the base station, e.g., what channels, frequencies, and protocols they must use to respond to the broadcast message. Accordingly, based on what frequency and channel a communication is received, the base station can determine what protocol it has assigned to that frequency and channel, irrespective of the identity of the transmitting subscriber unit. In fact, multiple subscriber units may use the same frequency and channel to communicate with the base station using the same protocol, e.g., CDMA (which allows multiple subscriber units to share the same channel using a coding scheme). The base station is not necessarily able to “identify ... whether the first wireless communication device or the second wireless communication device sent the output signal” in order to implement the appropriate protocol for the channel.

In addition, Applicants respectfully submit that it is not inherent from the teachings of Shaheen that the base station 106 must necessarily be capable of “implementing a protocol that corresponds to the identified communication device” as recited in claims 1, 19, and 33 or of “effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication information” as recited in claim 34. As discussed above, the protocol implementation in Shaheen’s base station does not necessarily correspond to an identified or determined sending device. The protocol implementation in the base station of Shaheen corresponds to the information broadcasted by the base station and chosen by the subscriber unit, e.g., the frequency and channel that the base station tells the subscriber units to use for each available protocol.

Moreover, the system described in Shaheen is not capable of “implementing a protocol ... wherein in response to identifying the first wireless communication device, a first

protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented” as recited in Applicants’ claimed invention. The “multiple mode subscriber units” in Shaheen listen to available protocols and associated communication requirements (e.g., channel, frequency, etc.) and select which protocol from those available to implement. Thus, two “multiple mode subscriber units” may select initially the same protocol to communicate with the base station and the base station would implement the same protocol for both units. Thereafter, because the subscribing units are multiple mode, the two identified subscriber units may chose to operate with a different protocol in a subsequent communication. Therefore, the base station of Shaheen cannot simply “implement a protocol in response to identifying” the subscriber unit, because, in this situation, if it were to do so the base station would end up using the wrong protocol with respect to at least one of the subscriber units in the subsequent communication, which would cause the system to fail.

Therefore, Applicants submit that independent claims 1, 19, 33, and 34 are patentably distinguishable from the cited Shaheen reference. Moreover, as claims 2-6, 8-10, 17, 20, 22-26, 27-29, 32, 38, and 47 are directly or indirectly dependent on one of claims 1, 19, 33, or 34, all arguments advanced above with respect to claims 1, 19, 33, and 34 are hereby incorporated so as to apply to claims 2-6, 8-10, 17, 20, 22-26, 27-29, 32, 38, and 47.

Accordingly, for at least these reasons, Applicants kindly request withdrawal of this rejection and prompt allowance of claims 1-6, 8-10, 17, 19, 20, 22-26, 27-29, 32-34, 38, and 47.

Response to Rejection Under 35 USC 103(a) in View of Shaheen

In the 15th paragraph of the Office Action, Examiner rejects claims 7, 21, and 35 under 35 USC § 103(a) as allegedly being unpatentable in view of Shaheen. This rejection is respectfully traversed.

Claim 7 is dependent on claim 1. As such, claim 7 includes all the limitations of claim 1, including the limitation of “implementing a protocol that corresponds to the identified wireless communication device.”

Similarly, claim 21 is dependent on claim 20, which in turn depends on claim 19. As such, claim 21 includes all the limitations of claim 19, including the limitation of “a processor is adapted to ... implement a protocol that corresponds to the identified wireless communication device.”

Likewise, claim 35 is dependent on claim 34. As such, claim 35 includes all the limitations of claim 34, including the limitation of “a processor for effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication information.”

As detailed above, the Shaheen reference fails to anticipate claims 1, 19, 33, and 34 for at least the reason that it does not describe directly or inherently the claimed “determining which wireless communication device sent the communication information,” “identify[ing] whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal,” “implementing a protocol that corresponds to the identified communication device,” and “effecting upon received communication information a protocol that corresponds to one of

the first or second wireless communication devices in response to determining which wireless communication device sent the communication information” as recited in the claims.

Accordingly, the Shaheen reference also fails to anticipate claims 7, 21, and 35 because these claims also include the “identifying,” “determining,” “implementing,” and “effecting” limitations not described in Shaheen.

Further, with respect to claims 7 and 21, the Examiner asserts that it would have been obvious to a person of skill in the art to modify the Shaheen reference “to have two different processes in the processor for handling the different signals from the two devices.”

Applicants note that the Examiner has not pointed out any description, whether inherent or not, of a processor in the base station of the Shaheen reference. Further, Applicants respectfully submit that even if a processor were described in the Shaheen reference, its modification as suggested by the Examiner would not have been obvious without the benefit of Applicants’ invention. Moreover, such a modification would not be obvious because the proposed modification to the Shaheen reference still fails to disclose or suggest the “identifying” and “implementing” limitations recited in claims 1 and 19 and included in claims 7 and 21. Accordingly, Shaheen, alone or as modified by the Examiner fails to anticipate or render obvious claims 7 and 21. Similarly, the Shaheen reference as modified by the Examiner with respect to claim 35, that is, adding a third antenna (or port) to the base station 106, also fails to disclose or suggest the “determining” and “effecting” limitations of claim 34.

Therefore, for at least all of the above reasons, Applicants respectfully submit that claims 7, 21, and 35 are patentable over Shaheen alone or in combination with Examiner’s

purportedly obvious modifications. Thus, Applicants respectfully request that Examiner reconsider and withdraw this rejection.

Response to Rejection Under 35 USC 103(a) over Shaheen in View of Junod

In the 18th paragraph of the Office Action, Examiner rejects claims 36, 37, 39, 40-46, 48, and 49 under 35 USC § 103(a) as allegedly being unpatentable over Shaheen in view of U.S. Pat. No. 5,854,621, to Junod et al. (“Junod”) and in light of the rejection to claims 47 and 35. This rejection is respectfully traversed because the combination of the references is improper and even if it were proper the combined references fail to render these claims obvious.

Junod cannot properly be combined with Shaheen. Junod is entitled “Wireless Mouse” and describes a wireless communications interface between peripherals and host personal computers or workstations. See Junod, col. 2, lines 17-19. The Examiner asserts that it would have been obvious to a person of ordinary skill in the art to combine the wireless mice (and possibly wireless keyboards) of Junod as input devices to the subscriber units in Shaheen. The Examiner further asserts that it would have been obvious to send the information from the keyboard/mouse to the respective antennas/ports at the base stations in Shaheen. The Examiner proposes that the motivation to combine the wireless keyboards and mice of Junod with the subscriber units of Shaheen stems from the ability of subscriber devices, like cell phones, to

handle data beyond voice that needs a mouse or keyboard so that the user can interact with the data. In some circumstances, it would be easier to interact with the data by attaching a keyboard or a mouse to the subscriber unit—for example, using the keypad on a phone can be very cumbersome when it comes to interacting with data. The information input from the keyboard or mouse can then be sent to the proper port at the base station.

Applicants respectfully submit that the combination of Shaheen and Junod suggested by the Examiner is improper. It is well settled law that when making a rejection under 35 U.S.C. § 103, Examiner has the burden of establishing a prima facie case of obviousness. Examiner can satisfy this burden “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references” in the manner suggested by Examiner. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). “[E]lements of separate prior patents [and/or publications] cannot be combined when there is no suggestion of such combination anywhere in those patents [and/or publications]...; and a court should avoid hindsight...” (emphasis added; annotations within square brackets). Panduit Corp. v. Dennison Mfg. Co., 1 USPQ2d 1593, 1597 (Fed. Cir. 1987), citing ACS Hospital Systems, Inc. v. Montefiore Hospital, 220 USPQ 929, 933 (Fed. Cir. 1984), and W.L. Gore & Associates v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983). See also Uniroyal Inc. v. Rudkin-Wiley Corp., 5 USPQ2d 1434, 1438-1441 (Fed. Cir. 1988). Applicants respectfully submit that facilitating data input into the subscriber unit would not motivate a person of ordinary skill in the art to combine a wireless mouse or keyboard with a cellular phone, already wireless itself. Further, Applicants respectfully submit that the input from the keyboard (e.g., codes representative of ASCII characters) and from the mouse (signals indicating position or displacement within the display) would not be sent to the base station of Shaheen’s wireless cellular system. Should a wireless input device be used to input data into Shaheen’s subscriber units, the input is sent to the subscriber unit. The subscriber unit operates on that input to produce an output, e.g., maps a key code to an ASCII letter or a displacement of a mouse over a table to a cursor position change in the subscriber unit’s

display. The output of the subscriber unit is then sent to the base station. The signal sent by such a wireless mouse/keyboard would not be sent to the base station of the wireless cellular system. Contrary to Examiner's assertion, Applicant's respectfully submit that it would not be obvious to send cursor position data for a mouse operating in conjunction with a cellular phone to the base station of the cellular network on which the cellular phone operates.

If Examiner is not persuaded by Applicants' arguments that the combination of Shaheen and Junod is improper, Applicants respectfully request that Examiner provides support of any "teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine" the wireless mouse/keyboard of Junod with a subscriber unit of Shaheen to send information from the wireless keyboard or mouse to the proper port at the base station of the wireless cellular network.

Moreover, notwithstanding the improper combination of the Shaheen and Junod references, Applicants respectfully submit that the improperly combined references also fail to anticipate or render obvious claims 36, 37, 39, 40-46, 48, and 49.

With respect to claims 48 and 49, as these claims depend from claim 1 they are not disclosed or suggested by the combination of Shaheen and Junod because Junod does not cure the deficiencies of Shaheen described above with respect to claim 1. Assuming, *arguendo*, that Shaheen could be properly combined with Junod, the combination of Shaheen and Junod also fails to disclose or suggest the "identifying" and "implementing" limitations of independent claim 1. Accordingly, Shaheen, alone or in combination with Junod, fails to anticipate or render obvious dependent claims 48 and 49.

Similarly, with respect to claims 36, 37, 39, and 40-46, as these claims depend from claim 34, they are not disclosed or suggested by the combination of Shaheen and Junod

because Junod does not cure the deficiencies of Shaheen described above with respect to claim 34. Assuming, *arguendo*, that Shaheen could be properly combined with Junod, the combination of Shaheen and Junod also fails to disclose or suggest the “determining” and “effecting” limitations of independent claim 34. Accordingly, Shaheen, alone or in combination with Junod, fails to anticipate or render obvious dependent claims 36, 37, 39, and 40-46.

Therefore, for all of the above reasons, Applicants respectfully submit that claims 36, 37, 39, 40-46, 48, and 49 are patentable over the cited references, alone or in combination. Thus, Applicants respectfully request that Examiner reconsider and withdraw this rejection

Conclusion

Applicants have added new claims 50 and 51 for which Applicants request consideration and examination. Applicants respectfully submit that these are supported by the specification and are commensurate within the scope of protection to which Applicants believe they are entitled.

In sum, Applicants respectfully submit that claims 1-10, 17, 19-29, and 32-51, as presented herein, are patentably distinguishable over the cited references. Therefore, Applicants request reconsideration of the basis for the rejections to these claims and request allowance of them.

In addition, Applicants respectfully invite Examiner to contact Applicants' representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully Submitted,
Lazzarotto, et al.

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By:



Hector J. Ribera, Attorney of Record
Registration No. 54,397
FENWICK & WEST LLP
801 California Street
Mountain View, CA 94041
Phone: (650) 335-7192
Fax: (650) 938-5200
E-Mail: hribera@fenwick.com